CLAIMS

1. (Amended) A method for treating autoimmune diseases, which comprises administering orally to a mammal suffering from autoimmune diseases particles of biodegradable polymers capable of reducing autoimmune response in an amount of effective to induce tolerance against autoimmune response.

2. The method according to Claim 1, wherein said biodegradable polymers are poly(DL-lactide-co-glycolide), polylactides or polyglycolides.

3. The method according to Claim 1, wherein said autoimmune diseases are one of Th1-mediated or T cell-mediated autoimmune diseases selected from the group consisting of rheumatoid arthritis, insulin dependnent diabetes mellitus, uveitis, multiple sclerosis, autoimmune thyroiditis, autoimmune hepatitis, interstitial pneumonitis and glomerulonephritis, and their corresponding diseases in animal models.

4. The method according to Claim 3, wherein said autoimmune disease is rheumatoid arthritis.

5. The method according to any one of Claim 1 to Claim 4, wherein said mammal is human, rats, mice and monkeys.

6. The method according to any one of Claim 1 to Claim 4, wherein a single dose of said particles is administered to induce tolerance against autoimmune response.

7. The method according to any one of Claim 1 to Claim 4, wherein said particles have a size of less than about 500nm.

8. (Amended) A method for treating autoimmune diseases, which comprises administering orally to a mammal suffering from autoimmune diseases particles of biodegradable polymers entrapping an autoimmune antigen, said particles being administered in an amount of effective to induce tolerance against autoimmune response, and said particles of biodegradable polymers capable of reducing autoimmune response.

9. The method according to Claim 8, wherein said biodegradable polymers are poly(DL-lactide-co-glycolide), polylactides or polyglycolides.

10. The method according to Claim 8, wherein said autoimmune diseases are one of selected from the group consisting of rheumatoid arthritis, collagent induced arthritis, multiple sclerosis, experimental autoimmune encephalomyelitis, insulin-dependent diabetes mellitus, experimental diabete mellitus and uveitis.

11. The method according to Claim 10, wherein said autoimmune disease is rheumatoid arthritis.

12. The method according to Claim 8, wherein said antigen is type II collagen, S antigen, major basic protein, glutamic acid decarboxylase, or immunodominant peptide fragments thereof.

13. The method according to any one of Claim 8 to Claim 12, wherein said mammal is human, rats, mice and monkeys.

14. The method according to any one of Claim 8 to Claim 12, wherein a single dose of said particles is administered to induce tolerance against autoimmune response.

15. The method according to any one of Claim 8 to Claim 12, wherein said particles have a size of less than about 500nm.

16. (Amended) A composition for inducing tolerance for autoimmune diseases, which comprises as an active ingredient particles of biodegradable polymers capable of reducing autoimmune response. in an amount of effective to induce tolerance against autoimmune response.

17.(Amended) A composition for inducing tolerance for autoimmune diseases, which comprises as an active ingredient particles of biodegradable polymers entrapping an autoimmune antigen in an amount of effective to induce tolerance against autoimmune response, and said particles of biodegradable polymers capable of reducing autoimmune response.